STATE OF VERMONT
PUBLIC SERVICE BOARD

Docket No. 7052

Petition and tariff filing of City of Burlington Electric Department re: proposed rate design changes, to take effect March 18, 2005	)))	Hearing at Montpelier, Vermont November 8, 2005

Order entered: 4/27/2006

PRESENT: Ennis J. Gidney, Hearing Officer

APPEARANCES: William F. Ellis, Esq.
McNeil, Leddy & Sheahan
for the City of Burlington Electric Department

June Tierney, Esq.
for the Vermont Department of Public Service

I. INTRODUCTION

In this proceeding, the Vermont Public Service Board ("Board") considers the City of Burlington Electric Department's ("BED") proposed changes to its rate design, some of which are contested, and other tariff changes, which are not contested. As will be discussed in greater detail below, there are four contested rate design issues for the Board to resolve. The first issue pertains to whether each customer class' rates should be set to reflect the results of BED's fully-allocated cost of service study. The second and third issues relate to specific elements of the rate design for the residential class — the appropriate customer charge, and the size and price of the initial block of power. The last contested issue involves the appropriateness of BED's proposed temporary surcharge.

In accordance with the Board's Order in Docket No. 6913, BED filed on January 28, 2005, a fully allocated class cost of service study ("cost study") with the Board.[1] The cost study indicates that the costs to serve residential and street lighting customers exceed the revenues collected from them, while the revenues generated from small general, large general and primary customers exceed the costs to serve those customers. BED now proposes to change the allocation among customer classes so it is closer to, but not fully consistent with, the results of the cost study. Under BED's proposal, commercial and primary customers would continue to pay more than is indicated by the cost study while residential and street lighting customers would continue to pay less. According to BED, its proposed changes moderate the negative effects of double-digit rate increases that would arise from adopting the allocation in the study, especially for customers using less than 200 kWh per month.

Among its various proposed changes, BED would increase rates by 5.39 percent and 25.45 percent for residential and street lighting customers, respectively, over January 2004 levels. In addition to the increases, BED also proposes rate reductions of 1.85 percent, 2.64 percent and 1.48 percent for small general, large general and primary customers, respectively.[2] BED's proposal to alter rates and make other tariff changes does not affect the total revenue requirement of $36,051,918 established in Docket No. 6913.

As a part of its petition, BED also asks the Board to approve a temporary surcharge of $0.0015/kWh to recover $250,000 in lost revenues that BED claims would result due to the expected implementation date of the proposed rate design changes.[3]

The Vermont Department of Public Service ("Department") reviewed BED's class cost of service methodologies and agrees with its results. The Department, however, recommends that the Board reject BED's proposed rate design and immediately adjust BED's rates to reflect each

1. The cost study was performed using information from the 12 months ending June 30, 2003. Subsequent to that date, in Docket No. 6913, the Board approved a 7.19 percent across-the-board increase for all of BED's customer classes, effective with service rendered on and after January 3, 2004. The percentage changes used in this Order are to the rates currently in effect, that is, the rates in effect after the 7.19 percent increase.

2. Exh. BED-2, p. 16-1.

3. BED originally proposed that the new tariffs take effect on March 18, 2005. When the Board opened this investigation into the proposed new tariffs, it suspended their implementation until the conclusion of this proceeding.

customer class' costs as shown in the cost study. In addition, the Department recommends increasing the residential customer charge to $12.58 per month, and increasing the price and reducing the size of the current residential initial block of power. Finally, the Department recommends that the Board reject BED's request to implement a temporary surcharge.

This Proposal for Decision recommends that the Board approve: (1) rates that are generally consistent with BED's fully-allocated cost of service study; (2) a residential customer charge of $6.00, which is calculated on a residual basis after setting residential energy rates based on the principle of marginal costs; (3) a reduction in the size, and an increase in the price, of the residential initial block of power; and (4) other uncontested proposed tariff changes. Approving rates consistent with the cost study results in an increase of 12.13 percent for the residential customer class and 32.18 percent for the street lighting customer class. Such rates would also result in rate decreases for the small general, large general and primary customer classes of 3.91 percent, 5.57 percent and 3.12 percent, respectively.[4] Because of the magnitude of the resulting rate increases for residential and street lighting customers, I recommend phasing in the changes over a two-year period, rather than immediately adjusting customer rates to reflect costs, as proposed by the Department.

In this Proposal for Decision, I also recommend rejecting BED's request to implement a temporary surcharge. To address the timing issue underlying this request, I recommend that the Board require BED to implement the new rate design on a service-rendered basis on and after the second billing cycle in March 2006.

II. Procedural History

As noted above, BED filed with the Board a cost study on January 28, 2005. Along with the cost study filing, BED also proposed to revise various tariff provisions. The proposed effective date of the revised tariffs was March 18, 2005.

On March 9, 2005, the Department informed the Board that it had reviewed BED's cost study. Based on its review, the Department recommended that the Board open an investigation into BED's filing.

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4. Exh. BED-2, p. 16-1.

On March 11, 2005, the Board opened, pursuant to 30 V.S.A. § 226, an investigation into the rate design changes and other tariff changes in order to determine whether the proposed changes were just and reasonable. The Board also suspended the rate design changes until the issuance of a final order in this proceeding.

On March 29, 2005, a prehearing conference was convened to establish a procedural schedule. On April 8, 2005, the University of Vermont ("UVM") filed a motion to intervene which was subsequently granted. A public hearing was held at BED's auditorium on May 9, 2005. No members of the public attended. On November 8, 2005, a technical hearing on the merits of BED's proposed rate design changes was held. UVM did not appear at the technical hearing and has not contested any issues.

Pursuant to 30 V.S.A. § 8, and based on the record evidence, I present the following findings of fact and conclusions.

III. Findings of Fact

A. Fully-allocated Class Cost of Service Study

BED's costs consist of operating expenses and interest on outstanding debt obligations. In Docket 6913, BED's overall costs were determined to equal approximately $36 million. However, the costs to serve individual classes of customers can vary significantly depending on the nature of each particular class' demand for power and the plant facilities required to serve it. In this cost study, BED identifies the costs to serve each customer class and then assigns those costs to the responsible class for recovery.

Findings

1. BED filed a new fully-allocated class cost of service study based on the $36,051,918 revenue requirement established in Docket No. 6913. Harrison pf. at 6; exh. BED-2.

2. BED currently serves five classes of customers: residential; small general; large general; primary; and street lighting.[5] Exh. BED- 7.

3. BED assigned and allocated investment in plant and operating expenses to each customer class. Costs were directly assigned to a customer class when specific costs could be

5. Within these classes of customers, BED also serves customers currently taking service under time-of-use tariffs. Exh. BED-7.

attributed to a particular customer group. When costs could not be directly assigned, costs were assigned based on a proportional allocation factor generally linked to cost causation. Cost of Service Model for the Burlington Electric Department, November 2004, pgs. 7-21, Management Applications Consulting, Inc.

4. BED prepared its cost study in three basic steps. First, BED arranged specific costs by function. Second, costs were apportioned into cost components (or classifications). And, third, BED allocated these costs to specific classes of customers. Harrison pf. at 8-10.

5. Assignment of costs by function involves the separation of costs by operational characteristics. BED's major functional categories are: customer services; production; transmission; and distribution, with the distribution function divided again into primary and secondary voltage sub-functions. Harrison pf. at 8-9.

6. The classification of cost components further defines functional costs as customer-related expenses, demand costs and energy cost components. Harrison pf. at 8-9.

7. The customer charge is designed to recover expenses and investments associated with providing service regardless of whether any electricity is used at the customer's premise. Typically, these costs include billing and other customer-related expenses that do not vary much with changes in demand. Harrison pf. at 33.

8. BED's cost study indicates that customer-related costs such as billing, demand meters and service drops exceeds BED's proposed customer charge for each customer class. Harrison pf. at 33.

9. Demand costs include expenses associated with power supply and capacity as well as a portion of the transmission and distribution costs incurred to serve customer loads. Demand costs for large general and primary customers are partially recovered through a demand charge. Harrison pf. at 33.

10. Energy costs include expenses that vary with kilowatt-hour consumption. These costs are recovered through a fixed per-unit energy charge multiplied by the kilowatt-hours consumed. Portions of the customer and demand costs are recovered through the energy charge. Harrison pf. at 33.

11. The final step in the process is to assign functional and classified costs to specific customer classes based on cost causation. Harrison pf. at 8, 10-11.

12. Once all costs have been allocated to their respective customer classes, a cost of service is calculated for each customer class, with the sum of the class costs equal to BED's total cost to serve. Harrison pf. at 10.

13. BED's cost study shows the following allocation of costs among customer classes:

Total Utility	Residential	Small General	Large General	Primary	Street Lighting
$36,051,920	$10,658,279	$2,685,776	$16,623,390	$5,657,612	$426,858

Berry pf., attachment DMB-2.

14. The results of BED's cost study indicate that the rates presently in effect for residential and street lighting customers do not generate sufficient revenues to recover all of the fully-allocated costs. Harrison pf. at 21; exh BED-2.

Discussion

The primary purpose of the cost study is to assign cost responsibility to each one of BED's five customer classes. When specific investments and processes can be attributed to a customer class, the relevant costs are directly assigned to the responsible class. When costs can not be directly assigned (i.e., shared costs), the costs are assigned based on a proportional allocation factor that reflects the principle of cost causation. BED's cost study employs 30 different allocation factors. The most significant allocation factors assign costs associated with purchase power and capacity, investment in the McNeil power plant, transmission costs, network distribution and non-network distribution costs. [6]

The general objective of a cost study is to set rates that promote fairness and efficiency. To accomplish this objective, rates should reflect, to the greatest extent possible, the actual costs that a utility expects to incur to serve each class of customer.[7] There are several methods for

6. Harrison pf. at 11.

7. Tariff filing of the City of Burlington Electric Department re: Proposed rate design changes, Docket No. 5694, Order of 3/8/95 at 8.

allocating costs to each customer class, none of which satisfy all of the Board's pricing objectives at the same time. At a minimum, however, the allocation factors should recognize the characteristics of each class of customers' demands on BED's system. Such characteristics include peak demand, energy consumption, time of use, and the number of customers within the specific classes. The record evidence indicates that BED's cost study adequately reflects these characteristics at the time BED conducted its study.

BED and the Department agree that the model used to determine BED's fully allocated class cost of service is appropriate. The parties also agree that the cost study results have accurately identified the differences in costs among the various classes.[8] However, the Department and BED disagree on whether secondary-voltage line transformer costs should be assigned to the residential customer charge. This issue is discussed in the section below regarding the residential customer charge.

B. Rate Design and Implementation

After completing the cost study, BED proposed a set of rates designed to collect revenues equal to its overall cost of service. The proposed rate design was developed using a three-step process. First, BED established revenue targets based on each customer class' fully-allocated cost of service. Second, BED defined the structure of rates, or rate components, as customer charges, energy charges and, where appropriate, demand charges in order to reflect the nature of customers' demands for power and energy and the facilities used to deliver electricity. Rate structure also allows for a variety of incentives that could encourage customers to shift their demand to off-peak periods or to conserve consumption. Third, BED calculated the appropriate unit rates for each rate component.[9]

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8. Berry pf. at 3.

9. Harrison pf. at 23.

findings

Allocation Among Customer Classes

15. The cost study shows that BED's proposed rates for the residential and street lighting classes should be increased by an additional 5.64 percent ($601,375) and 4.83 percent ($20,619), respectively, in order to recover the fully-allocated costs of serving these customer classes. Exh. BED-2, pages 1, 15 and 16; Berry pf., attachment DMB-2.[10]

16. The cost study also shows that BED's proposed rates for the small general, large general and primary customers classes should be decreased by an additional 1.99 percent (or $53,473), 2.88 percent (or $479,307) and 1.58 percent (or $89,214), respectively, in order to collect revenues equal to the fully-allocated costs of serving these customer classes. Exh. BED-2, pages 1,15 and 16; Berry pf., attachment DMB-2.

17. The increase in street lighting revenue is due to a recently discovered error in the 1993 class cost of service study that underestimated street lighting demand by 100 percent. As a result, approximately half of the actual capacity costs that BED incurred to serve street lighting customers were recovered from street lighting customers. Harrison pf. at 25.

Findings

Residential Customer Charge

18. The cost study assigns costs associated with distribution and line transformers, including secondary-voltage line transformers, to demand and energy charges, not to customer charges. Harrison pf. at 33; Berry pf. at 3.

19. In order to moderate the effect of the increased costs in demand meters, capacity and other customer-related expenses that do not normally vary with kilowatt-hour consumption, it is appropriate to recover a portion of these costs through demand and energy charges. Additionally, recovering such costs through an energy charge is appropriate as a means to moderate consumption levels. Harrison pf. at 33; Harrison reb. pf. at 14.

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10. Percentage increases are calculated in the following manner: the difference between BED's actual class cost of service and proposed class revenue is divided by the actual class cost of service. For residential customers, the calculation is $10,658,279 less $10,056,904 equals $601,375. The difference of $601,375 is then divided by $10,658,279 which equals 5.642%. See Berry pf., attachment BMD-2 for the calculation of other customer classes.

20. The marginal cost of energy exceeds BED's embedded cost of energy. Exh. BED R-2; exh. BED-3.

Findings

Residential Initial Block

21. BED currently receives power from the New York Power Authority ("NYPA"). This power is less expensive than BED's other power sources, and is currently provided only to residential customers. Tr. 11/8/05 at 83-84 (Harrison).

22. In 2004, BED received approximately 73 kWh of NYPA power per month per residential customer.[11] 2004 FERC Form 1 at pages 301, 326-327.

Discussion

30 V.S.A. 218(a) authorizes the Board to set rates at levels that are just and reasonable, and sufficient to provide a utility a reasonable opportunity to generate revenues equal to its cost of service. The plain language of the statute, however, does not expressly define the boundaries of the Board's authority. As a result, the Board makes its determinations by weighing the merits of each rate design petition that is presented. Over time, the Board has interpreted the statutory language to mean that, to the greatest extent possible, rates should approximate marginal costs. As noted above, the Board's overarching objective is to promote fairness among customer classes and efficiency by charging customers for the costs a utility incurs to serve them.[12]

BED and the Department agree in principle that rates should be fair and promote efficiency. However, they disagree on how to implement changes to BED's current rate design to achieve the Board's objectives.

11. Total NYPA kWh purchased of 14,159,000 divided by average number of residential customers of 16,076 divided by 12 months = 73.4 kWh per customer per month.

12. Tariff filing of Citizens Utilities Co., Docket No. 5426, Order of 7/22/92 at 11.

Allocation Among Customer Classes

BED proposes revenue targets for the residential and street lighting customer classes that are $606,194 and $21,398, respectively, below the fully-allocated cost to serve those customer classes.[13] According to BED, immediately moving residential and street lighting rates up to their fully-allocated costs violates the principles of fairness and rate stability. In BED's opinion, it is acceptable, over a short period of time, for the residential and street lighting customer classes to pay less than the fully-allocated costs of serving them. As additional cost studies are performed, BED asserts that residential and street lighting rates could be gradually increased until those customer classes paid the fully-allocated cost of serving them. Finally, BED asserts that a policy that limits the amount of an increase for any particular class to no more than 125 to 150 percent of the overall increase is a fair policy.[14]

In the Department's opinion, BED's unadjusted cost study results accurately reflect each customer class' fully-allocated costs, and the Board should set rates to recover those costs, irrespective of the immediate increase.

Based on the record evidence, I recommend that the Board accept BED's cost study results, and approve rates that reflect the cost study's allocation of costs among customer classes. However, because of the magnitude of the resulting rate increases for the residential and street lighting customer classes, I recommend that the Board require BED to phase-in the changes for all customer classes over a two-year period.

Residential Customer Charge

BED and the DPS disagree over the magnitude of the residential customer charge. BED asserts that the costs associated with distribution and secondary-voltage line transformers are related to customer demand and should, therefore, be assigned to demand and energy charges.[15]

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13. Exh. BED-2, p. 16-1. There are minor differences in the amount of the revenue shortfall as calculated by BED and the Department. The Department claims the revenue targets are $601,375 and $20,619 short of fully allocated costs for residential and street lighting customers, respectively. For the purposes of setting rates for each customer class, I have relied on the Department's calculations.

14. Harrison pf. at 23.

15. Harrison pf. at 33.

Also, BED claims that if all of the distribution and line transformer costs, including secondary-voltage line transformers, were allocated to the customer charge component, energy rates would have to be reduced well below marginal energy costs. Otherwise, BED would generate revenues in excess of its overall $36 million cost of service. Additionally, BED claims that increasing the residential customer charge to $12.58 per month, as proposed by the Department, would violate the principles of fairness and rate stability, especially for those customers with low energy usage.[16]

The Department has the opposite opinion. According to the Department, the costs of secondary-voltage line transformers do not vary with energy consumption or demand. These costs are incurred to connect customers to the electric distribution system regardless of the amount of electricity consumed.[17] As such, the Department argues that it is appropriate to recover all of the secondary-voltage line transformer costs through a fixed customer charge and that customer charges for the residential class should be increased.[18]

BED's cost study indicates that the customer charge does not fully recover all the costs BED expects to incur to connect customers to its distribution network and bill for services. Nevertheless, an increase in customer charges at this time would result in either excess revenues or require us to set energy rates below marginal costs.

This Board has consistently attempted to set the energy component of rates as close as possible to marginal costs. Setting energy rates based on the principle of marginal costs achieves the Board's objective of promoting fairness and efficiency. Marginal rates reflect the energy costs that are expected to be incurred to provide energy to customers and send an appropriate price signal regarding usage. Setting energy rates below marginal costs inaccurately encourages excessive usage. The establishment of energy rates based on marginal costs requires residual pricing of customer charges in order to prevent over collection of revenues. When the marginal

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16. Harrison pf. at 33.

17. Berry pf. at 3.

18. Even though some secondary-voltage line transformer costs are assigned to other customer classes, the Department did not specifically discuss whether those costs should be assigned to those classes' customer charges, nor did the Department recommend increases in non-residential customer charges.

cost of energy exceeds fully-allocated costs, it is theoretically possible to set the customer charge at zero and, in some cases, negative.[19]

BED's analysis on rebuttal indicates that the marginal cost of energy approximates 14 cents per kWh, which is greater than its fully-allocated energy costs.[20] The Department has not refuted this outcome. In line with the Board's objective of promoting fairness and efficiency, it is therefore appropriate in this instance to accept this energy cost which requires us to set the customer charge at less than fully-allocated costs. As BED points out, increasing the proposed customer charge to reflect 100 percent of the fully-allocated costs, as the Department recommends, in order to capture secondary-voltage line transformer costs without simultaneously decreasing the energy rate on the tail block would result in overall revenues that exceed BED's $36 million cost of service.[21] Therefore, I recommend that the Board reject the Department's proposal to include secondary-voltage line transformer costs in the customer charge.

In fact, in order to set energy rates even closer to the marginal cost of energy, I recommend removing all of the distribution and line transformer costs (not just the secondary-voltage line transformer costs) from the customer charge. This would reduce the residential customer charge to $6.00, rather than increase it to $8.00 as BED proposes.[22] The customer charge would still include some of the costs associated with billing, service drops and meters. As noted above, during times such as these when the marginal cost of energy exceeds embedded costs, it is appropriate to set the customer charge at levels that are less than the fully-allocated costs. Lowering the residential customer charge and simultaneously increasing the energy charge in the direction of current marginal energy costs would allow BED to generate revenues equal to, but no more than, its overall cost of service. In addition, a lower residential customer charge would allow for energy rates to be set closer to the current marginal cost of energy.

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19. *See,* tariff filing of the City of Burlington Electric Department re: Proposed rate design changes, Docket No. 5694, Order of 3/8/95 at 1 of Board Discussion. It is worth noting that in Docket 5694, embedded energy costs exceeded marginal energy costs. Therefore, the Board determined that a positive customer charge was appropriate.

20. Harrison reb. pf. at 12-14; exh. BED-3.

21. Exh. BED R-3.

22. The current residential customer charge is $7.86. Harrison pf. at 33-34.

Residential Initial Block

BED's current residential rate design includes an "initial block" under which the first 200 kWh of energy purchased by each residential customer in each month costs 4.4 cents per kWh less than all subsequent kWh. The Department asserts that BED's proposal to continue the current structure of the residential initial block is not cost-justified.[23] According to the Department, continuation of the initial block as currently structured is one of the main reasons why the residential class does not generate sufficient revenues. Instead, the Department recommends that the Board reduce the size of the first block to 100 kWh, and increase the price so that it is only 2.9 cents per kWh less than the price of subsequent kilowatt-hours. The Department states that this price reflects the difference between the price BED pays NYPA for hydroelectric power and the average price of all other purchased power expenses. Additionally, the Department points to BED's FERC Form-1 as proof that BED purchased roughly 90 kilowatt-hours per residential customer per month under the NYPA contract.[24] Therefore, it is appropriate, according to the Department, to reduce the size of the initial block to the first 100 kilowatt-hours of consumption.

I recommend that the Board adopt the Department's recommendation to change the size and price of the residential initial block. The allocation of NYPA power to BED has been declining.[25] As such, reducing the size of the initial block is justified. In addition, the Department is correct that increasing the price of the initial block better matches the cost of the NYPA power.

However, approval of the Department's recommended changes to the residential initial block will significantly affect low-usage customers. To moderate this rate impact, I recommend phasing in the change over a two-year period as shown below.

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23. DPS Proposal for Decision at 11-12.

24. Tr. 11/8/05 at 84 (Harrison); Berry pf. at 2.

25. Tr. 11/8/05 at 86 (Harrison).

	Size	Price
Year 1	150 kWh	2.9 cents per kWh less than subsequent kWh
Year 2	100 kWh	2.9 cents per kWh less than subsequent kWh

C. Uncontested Proposed Tariff Changes

Findings

Other Rate Structure Changes

23. BED proposes to eliminate the Residential Service, with the Electric Hot Water Heater Load Management Device ("RW") tariff as a separate tariff since the customer and energy charges of this rate are identical to the standard Residential Service ("RS") rate. Buckley pf. at 4; Harrison pf. at 26.

24. In place of the RW tariff, BED proposes to include a provision in the other residential rates, both RS and the optional time-of-use rate, that rewards customers for controlling water heating demand. Harrison pf. at 26.

25. BED also proposes to keep the Power Miser credit of $1.00 based on the estimate of benefits to BED. Harrison pf. at 34; Buckley pf. at 4.

26. Eliminating the RW tariff and placing a credit for program participation on bills is administratively easier for BED. Buckley pf. at 4.

27. BED also proposes to eliminate its non-time of use Primary Service ("PS") tariff. Buckley pf. at 6-7; Harrison pf. at 27.

28. Of the fifteen customers presently served under either the PS tariff or the optional Primary Service Time-of-Use ("PT") tariff, all but one were served under the PT tariff. BED's primary service customers are sophisticated energy users who are capable of understanding and reacting to time-of-use rates. Harrison pf. at 27.

29. A bill impact analysis of the one customer on the PS tariff demonstrated that it would be better served under the proposed time-of-use rate, and therefore BED recommended that the non-time-of-use tariff be eliminated and the one PS customer be switched to the new PT tariff. Harrison pf. at 27.

30. BED has also restructured the Street Lighting ("SL") tariff, replacing an energy-only rate with a monthly charge based upon standard lamp types and wattages. Buckley pf. at 7; Harrison pf. at 27.

31. BED proposes to require a contribution-in-aid of construction from the SL customer when the installed cost of a luminaire exceeds the average cost of standard lighting. Buckley pf. at 7; Harrison pf. at 27, 38.

32. For each class of service, BED's rates include a customer and energy charge. Large commercial and industrial rates also include demand charges. Harrison pf. at 32.

33. All time-of-use ("TOU") rate customers pay a slightly higher customer charge than standard rate customers to reflect the additional cost of the necessary metering equipment. Buckley pf. at 4.

34. The energy charges for the TOU customers were set with a three-season, on/off peak structure, with the differential between peak and off-peak charges being greater than in the past. Buckley pf. at 4-5.

35. For the Primary service class, the demand and energy charges were set to a three season, on/off peak structure based on an analysis of the cost to serve that customer class. Buckley pf. at 7.

36. For the Large General and Primary Classes, BED modified the tariff Terms and Conditions to allow participation in ISO-NE's Load Response Program, and included a tariff rider to describe the details of participation in the load response program. Buckley pf. at 6-7.

Findings

Seasonal Rates

37. BED proposes to eliminate any seasonal differentials in its standard, non-time-of-use rates. Buckley pf. at 3; Harrison pf. at 28.

38. It is not appropriate to shift the peak period from winter to summer because the market clearing price for power in Vermont provided by ISO-NE reveals that both periods have potentially high cost implications for BED. Harrison pf. at 28.

39. Instead of proposing seasonal rates, BED proposes making time-of-use rates more relevant. These proposed time-of-use rates would be available as an option to provide sophisticated consumers with price signals that encourage load shifting. The revised customer load shapes could lower consumers' bills and reduce BED's costs. Harrison pf. at 28.

40. BED analyzed system load to determine the probability of the peak occurring in each hour of a typical year, as well as the hourly differences in the power supply market clearing price to determine the appropriate time-of-use pricing periods. Harrison pf. at 28-29.

41. The periods were created to allow consumers an opportunity to discern price differentials between rating periods while continuing to provide reasonably accurate cost information across all hours. Harrison pf. at 30.

42. BED's proposed time-of-use rating periods are set forth in the following table:

	Winter					Summer						Winter
	Jan	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**
Weekday Peak	6:00 to 22:00	6:00 to 22:00	6:00 to 22:00	(NONE)	(NONE)	12:00 to 18:00	12:00 to 18:00	12:00 to 18:00	12:00 to 18:00	(NONE)	(NONE)	6:00 to 22:00
Weekday Off Peak	All Other Hours	All Other Hours	All Other Hours	All Hours	All Hours	All Other Hours	All Other Hours	All Other Hours	All Other Hours	All Hours	All Hours	All Other Hours
Weekends	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours
Holidays (6)	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours	All Hours

Holidays: New Year's Day
Memorial Day
Independence Day
Labor Day
Thanksgiving Day
Christmas Day

Harrison pf. at 30-31.

Discussion

No party opposed BED's proposed tariff changes described in findings 23-42, above. As the record evidence demonstrates that BED's proposed adjustments are reasonable and could result in customer benefits, I recommend the Board approve the proposed changes.

D. Temporary Surcharge

Findings

43. Because BED is proposing to eliminate seasonal differentials in its non-TOU rates, BED's proposed rates are generally higher in the summer than current rates and generally lower in the winter than current rates. Harrison reb. pf. at 18.

44. The non-seasonal nature of the new rates could cause BED's revenues in its fiscal year ending June 30, 2006, to be less than BED would collect under current rates, if the proposed rates are implemented late in that fiscal year. If the rates were implemented on January 1, 2006, it is estimated that BED would collect approximately $250,000 less than it would under current rates during the current fiscal year. Harrison reb. pf. at 18; tr. at 104-05 (Harrison).

45. BED proposes to eliminate the claimed "revenue shortfall" through a temporary surcharge of $0.0015 per kWh. Harrison reb. pf. at 18; tr. 11/8/05 at 76 (Harrison); exh. BED-R-5.

46. Implementation of the proposed rates at the end of the June 30, 2006, fiscal year would eliminate the need for a surcharge. Tr. 11/8/05 at 105 (Harrison).

Discussion

During the rebuttal phase of this investigation, BED anticipated implementing the proposed rates on January 1, 2006, which is the middle point of BED's fiscal year. As a result of this implementation date, BED claimed that it would generate approximately $250,000 less than its revenue requirement during the current fiscal year due to the non-seasonal nature of the proposed rates. As a remedy, BED proposed a temporary surcharge of $0.0015 per kWh to be effective on January 1, 2006, and ending July 1, 2006.

The Department disagrees with BED and claims the appropriate remedy to account for a revenue shortfall, if any, would be to file for and justify a properly noticed request for a rate increase pursuant to 30 V.S.A. § 225(a).

First, it is important to recognize that the "revenue shortfall" discussed by BED is a timing issue related to the end of its fiscal year. Over any 12-month period, BED would collect the same revenue requirement under the current and the proposed rates. The "shortfall" is simply related to when the 12-month period begins relative to BED's fiscal year. Nevertheless, this is a real cash flow issue for BED.

BED has not persuaded me that its proposed solution to this timing issue is appropriate. BED first proposed the temporary surcharge in September, 2005, nearly nine months after its original petition. BED is prohibited from selectively updating its cost of service study, except under emergency conditions provided in § 225(a). BED has not filed for emergency relief. As such, I conclude that the proposed surcharge is unjustified and the request for approval should be denied.

However, seeking relief under § 225(a) is not the only solution available to BED. Implementing the new rates effective on a service-rendered basis on or after the second billing cycle in March 2006, should eliminate the fiscal year "revenue shortfall" since there would be only approximately one month in which expected revenues would be lower than under current rates, and approximately two months in which expected revenues would be higher than under current rates.[26] In addition, I note that BED originally proposed that the new rates take effect March 18, 2005. Presumably when BED made that proposal, it considered the effect on its fiscal year revenues, and found the impact to be acceptable. Implementing the new rates at approximately the same time of year in 2006 should have approximately the same effect on BED's fiscal year revenues. Therefore, I recommend that the Board require BED to implement the first phase of the new rate design on a service-rendered basis with the second billing cycle in March 2006.

IV. Conclusion

Based on the evidence, I conclude that BED's cost study accurately reflects the fully-allocated cost to serve each of the five customer classes. However, to moderate the rate impacts of the changes, I recommend that the Board order BED to phase-in the new rate design over two years. In addition, I recommend that BED modify the residential initial block so that its price is 2.9 cents less per kWh than the remaining block, and to limit the discount to the first 150 kWh in

26. Under BED's current rates, the winter season lasts from the third billing cycle in December through the second billing cycle in April. Summer rates are in effect during the remainder of the year.

the first year, and the first 100 kWh in the second year. Consistent with the Board's practice of setting prices that approximate, to the greatest extent possible, the marginal cost of energy, I recommend removing all of the distribution and line transformer costs from the residential customer charge, and residually setting the residential customer charge at $6.00 per month.

I also recommend that the Board reject BED's request to implement a temporary surcharge for the reasons stated above. Instead, I recommend that the Board order BED to implement the new rate design for services rendered on or after the second billing cycle in March 2006.

Lastly, I recommend that the Board direct BED to file revised tariffs and supporting documentation to reflect the effects of the two-year phase-in and the specific changes to the residential rate structure described above.

This Proposal for Decision has been served on all parties to this proceeding in accordance with 3 V.S.A. § 811.

Dated at Montpelier, Vermont, this 27th day of April, 2006.

s/Ennis John Gidney
Ennis John Gidney
Hearing Officer

V. Board Discussion

On March 20, 2006, BED and the Department filed comments on the Proposal for Decision ("PFD"); both were in general agreement with the Hearing Officer's recommendations. Where they do disagree with the PFD, the parties have requested that we modify the Hearing Officer's recommendations. In this discussion, we consider each request for modification. In addition, we approve BED's request to eliminate seasonal rates and make other changes regarding the implementation of the new rates.

(1) Residential Rate Design

In its comments on the PFD, BED reiterated its arguments in its brief and requested Board approval of its original proposal to set the initial energy block at 200 kWh per month, rather than the Hearing Officer's recommendation to reduce the initial block to 100 kWh per month over a two-year period.[27] Citing the concerns of the City of Burlington's Board of Electric Commissioners, BED asserted that reducing the size of the initial energy block would unfairly penalize low-usage customers because they would face a larger percentage increase in their total bill (14.57%) than would high-usage consumers of electricity (3.71%). Additionally, BED asserted in its comments that the Hearing Officer's recommendations may have unintended consequences. According to BED, reducing the initial block first to 150 kWh, and then to 100 kWh, would be inconsistent with the Board's stated goal of setting energy rates as close as possible to marginal costs.

The Department also reiterated many of the arguments it had made previously. The Department maintained that the Board should modify the PFD and adopt its recommendation to move residential rates immediately to BED's fully allocated costs. The Department's recommendation would result in a customer charge of $12.58 per month, an immediate reduction in the initial energy block and an increase in the energy rate for NYPA power.

The Department also asked the Board to establish a $10.00 per month customer charge for residential time-of-use ("RT") service. Relying on the Hearing Officer's methodology to residually set customer service charges for non-time-of-use residential service, the Department

27. In its comments on the PFD, BED no longer opposes the Hearing Officer's proposed reduction in the NYPA power energy rate discount.

recommended that the Board also residually set the customer charge for this service. According to the Department, applying this methodology results in a residential RT customer service charge of $10.00 per month.

We approve the Hearing Officer's recommendations, except for those items mentioned below. As noted by the Hearing Officer in the PFD, the Board's overarching objective is to promote fairness among customer classes and economic efficiency by charging customers for the costs a utility incurs to serve them.[28] Achieving this objective has meant that retail rates have been, to the greatest extent possible, set to approximate marginal costs. However, achieving this goal is difficult when, as here, marginal energy costs exceed fully allocated costs. Under such conditions, it is necessary to residually set certain rate elements in a manner that balances the twin goals of maximizing economic efficiency and generating revenues that are equal to, but no more than, BED's overall cost of service. The Hearing Officer's proposed rate design achieves this delicate balance.

We are aware that approval of this rate design will result in a larger percentage increase in the bills of low-usage customers than the bills of high-usage customers. As a way to mitigate the financial impact on low-usage customers, we conclude that phasing-in the reduction in the initial energy block is appropriate.

Additionally, we disagree with BED's proposition that the rate design we approve today is unfair to low-usage consumers. The differential in the bill increases reflects the fact that the availability of low-cost NYPA power is decreasing and being replaced with higher-cost power. The replacement has a greater impact, in percentage terms, on low-usage customer's bills because the lower-cost NYPA power was previously a greater share of the low-usage customer's total kilo-watt hour consumption. In dollar terms, however, the impact of the change in rate design on high-usage customers' bills is greater than the impact on the bills of low-usage customers. And, as a result, we conclude that the inclining block rate design we are approving in this Order will send the appropriate price signals as the tail block of energy is priced as close to marginal costs as possible. By contrast, retaining a below-cost block of power would encourage inefficient consumption of energy.

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28. *Tariff filing of Citizens Utilities Co.*, Docket No. 5426, Order of 7/22/92 at 11.

BED makes a legitimate argument in its comments on the PFD that the Hearing Officer's recommendation to phase-in the NYPA-related reductions in the initial energy block results in a tail block rate that is less than BED's marginal energy costs. However, for the reasons we have stated above, it is not always possible to strictly adhere to our stated policy of setting rates equal to a utility's marginal costs. Our goal of achieving economic efficiency is necessarily tempered by the requirement to allow BED to generate revenues to cover its overall costs, and no more.

The Board also approves the Department's recommendation to set the residential RT customer charge at $10.00 per month. The recommendation is consistent with the Board's economic efficiency goal mentioned above.

(2) Implementation Date

BED requested that the implementation date of the new rates be modified from the second billing cycle of March, 2006, to July 1, 2006. BED asserted that delaying the implementation date is necessary due to billing complications, lack of staff resources to reprogram and test software and insufficient time to prepare for and run a parallel test of the billing system in order to ensure accuracy. [29]

After considering the record evidence, BED's comments on the PFD, and the fact that it is now a month after the originally proposed implementation date, we conclude that postponing the implementation date to July 1, 2006, is reasonable. The delay will provide BED a sufficient amount of time to perform a thorough test of its billing system and minimize the possibility of billing errors.

(3) Service-Rendered vs. Bills-Rendered Implementation

BED also asked the Board to modify the PFD in order to allow BED to implement the new rates on a bills-rendered basis rather than on a service-rendered basis. BED stated that because the Board is approving a new rate design, all of its billing data will need to be changed in a single step. BED maintains that the necessary changes cannot be staggered over a period of time, which would be the case were the new rates to be implemented on a service-rendered basis.

Because BED's billing system will require a wholesale change in billing data, it would be simpler and more efficient for BED to implement the new rates on a bills-rendered basis. Such a

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29. The Department did not comment on the implementation date in its comments on the PFD.

modification would also be less prone to errors as BED would avoid having to pro-rate charges, a process that would have been necessary if the changes were to be implemented on a service-rendered basis. Thus, we conclude that BED's request is reasonable and find that implementing the new rates on a bills-rendered basis is appropriate.

(4) Elimination of Seasonal Rates

BED proposed to eliminate seasonal non-time-of-use rates. As a substitute to seasonal rates, BED proposed a new tariff that includes time-of-use rating periods that, according to BED, would allow consumers to discern price differentials between rating periods while continuing to provide cost information across all hours.

No party opposed BED's proposed substitution of its seasonal rate tariff with a new time-of-use tariff and the Hearing Officer recommended that the Board approve BED's request based on the record evidence. However, because the PFD did not specifically recommend approval of the elimination of seasonal rates, we want to highlight this important change in BED's service offerings. We concur with the recommendation of the Hearing Officer to approve BED's request to replace the seasonal rates with a more relevant time-of-use tariff service. Additionally, we find BED's proposal to eliminate seasonal rates is reasonable, especially in light of new evidence indicating that it is no longer appropriate to shift the cost of peak period power from the winter season to the summer season because the market clearing price for power in Vermont shows that both seasons have potentially high cost implications for BED.[30]

30. Finding 38.

VI. ORDER

IT IS HEREBY ORDERED, ADJUDGED AND DECREED by the Public Service Board of the State of Vermont that:

1. The Findings and Conclusions of the Hearing Officer are adopted, except as modified in paragraphs 3 and 5 below.

2. The City of Burlington Electric Department ("BED") is entitled to rates that will produce total utility revenues in the amount of $36,051,920, with $10,658,279 to be collected from Residential Customers, $2,685,776 from Small General Service Customers, $16,623,390 from Large General Service Customers, $5,657,612 from Primary Customers and $426,858 from Street Lighting Customers.

3. BED shall phase-in the new rate design over a two-year period, with the first phase taking effect on a bills-rendered basis on and after July 1, 2006, and the second phase taking effect on a bills-rendered basis on and after July 1, 2007.

4. The standard residential customer charge shall be $6.00 per month.

5. The residential time-of-use customer charge shall be $10.00 per month.

6. The price of the residential initial block shall be set at 2.9 cents per kWh less than the price of the subsequent kWh, beginning in the first year of the rate design phase-in. The size of the residential initial block shall be 150 kWh in the first year of the rate design phase-in, and 100 kWh in the second year.

7. BED's seasonal rate tariff shall be eliminated and replaced with the time-of-use rating periods contained herein.

8. BED shall file appropriate tariffs that are consistent with the Findings and this Order and implement the first phase of the new rate design within twenty days of the date of this Order, to take effect on a bills-rendered basis on and after July 1, 2006.

9. BED shall file appropriate tariffs implementing the second phase of the new rate design, to take effect on a bills-rendered basis on and after July 1, 2007.

10. BED's tariff filings of July 1, 2006, and July 1, 2007, shall also reflect the across-the-board rate increases included in BED's Tariff Filing No. 7597 that have been allowed to take effect on May 1, 2006.

Dated at Montpelier, Vermont, this 27th day of April, 2006.

s/James Volz	)	
	)	PUBLIC SERVICE
	)	
s/David C. Coen	)	BOARD
	)	
	)	OF VERMONT
s/John D. Burke	)	

OFFICE OF THE CLERK

FILED: April 27, 2006

ATTEST: s/Judith C. Whitney
Deputy Clerk of the Board

NOTICE TO READERS: This decision is subject to revision of technical errors. Readers are requested to notify the Clerk of the Board (by e-mail, telephone, or in writing) of any apparent errors, in order that any necessary corrections may be made. (E-mail address: Clerk@psb.state.vt.us)

Appeal of this decision to the Supreme Court of Vermont must be filed with the Clerk of the Board within thirty days. Appeal will not stay the effect of this Order, absent further Order by this Board or appropriate action by the Supreme Court of Vermont. Motions for reconsideration or stay, if any, must be filed with the Clerk of the Board within ten days of the date of this decision and order.